

Air King®

Ventilation Products

Installation Instructions and User Guide

Model DRLC107

Exhaust Fan with Light Round Oak Trim



READ AND SAVE THESE INSTRUCTIONS

Important Safety Instructions

CAUTION: The equipment covered by these instructions should be installed and serviced only by competent personnel utilizing proper safety practices and procedures. These instructions are written for such personnel and are not intended as a substitute for adequate training and experience in safe procedures for this type of equipment.

Warning: Disconnect the power at service panel before beginning this installation.

Caution: To reduce the risk of fire and to properly exhaust air, be sure to duct air outside. Do not vent exhaust air into spaces within walls or ceilings, or into attics, crawl spaces, or garages. Acceptable for use over tub or shower when installed in a GFCI protected branch circuit.

Warning: To reduce the risk of fire or electric shock, do not use this fan with any solid-state speed control device.

Warning: To reduce the risk of fire or electric shock or injury to persons, observe the following:

- Use this unit only in the manner intended by the manufacturer. If you have any questions, please contact the manufacturer.
- Before servicing or cleaning unit, switch power to off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
- Do not install this fan in a ceiling thermally insulated to a value greater than R-40
- Installation work and electrical wiring must be done by qualified, competent, trained person(s) in accordance with all applicable codes and standards using proper safety practices, including fire-related construction.
- Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Agency (NFPA) and the American Society for Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE), and the local code authorities.
- When cutting or drilling into a wall or ceiling, ALWAYS identify hidden electrical wiring and other hidden utilities in advance, to avoid damage.
- Ducted fans must always be vented to the outdoors.
- NEVER place a switch where it can be reached from the tub or shower.

Caution: For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.

Warning: Do not use in kitchens.

To ensure the best air and sound performance, it is recommended that the length of ducting and the number of elbows be kept to a minimum, and that insulated hard ducting be used. Larger duct sizes will reduce noise and airflow restriction.

Before mounting the fan housing remove the motor plate/motor /blade assembly; it is secured in place via one #8 screw. Place the motor assembly along with the grill, reflector, and lens assembly (packaged in a separate carton) somewhere safe where they will not get damaged.

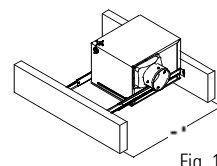


Fig. 1

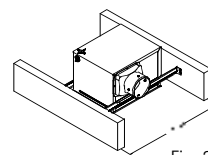


Fig. 2

Mounting the Housing

Select the best location to mount the housing in the ceiling. This fan will require at least 6" of clearance in the ceiling and will mount through drywall up to 3/4" thick. The fan housing can be mounted between 16" or 24" on center joists using the supplied four fan mounting rails. Figure 1 shows housing installation between 16" or 24" on center joists. Figure 2 shows housing installation directly to the joist (16" on center).

If the fan is installed in a suspended ceiling installation and mounting the fan from above is required, install the 4 fan mounting rails onto the fan housing. Pushed the rails in as tight as possible. Ensure the ends of the 4 mounting rails are evenly spaced from the edge of the housing. Use galvanized ceiling wire secured to the permanent ceiling and to the 4 mounting rail ends. Adjust the fan height so the housing will be flush with the finished ceiling.

Before cutting or drilling into any drywall check the area from above to plan the unit's wiring and duct run. Remember to keep the number of elbows and duct length to a minimum.

- Determine the best location for the fan.
- Select the most convenient electrical knockout and remove it.
- Determine if you are going to use the internal or external wire compartment – remove only one of the wire covers and place it somewhere safe to be reinstalled later.
- If the unit is being mounted in existing construction use the housing as a template to mark the necessary space on the ceiling to cut out.
- Determine the required mounting orientation (fig 1, or 2).
- Adjust the height of the fan housing so that it is flush with the finished ceiling.

Ducting

Note: All ducting must comply with local and national building codes.

1. Connect the ducting to the fan's duct collar. Secure in place using duct tape or screw clamp. Always duct the fan to the outside through a wall or roof cap. To ensure maximum air delivery, keep the length of duct and number of elbows to a minimum.

Electrical Wiring

WARNING: POWER MUST BE PROVEN DISCONNECTED BEFORE STARTING INSTALLATION, INSPECTION OR MAINTENANCE! FAILURE TO DO SO MAY CAUSE SERIOUS INJURY, DEATH AND/OR PROPERTY DAMAGE.

Caution: Make sure power is switched off at service panel before beginning this installation.

Note: All wiring must comply with local and national codes. You must ground this unit.

Note: It is recommended that you use a standard triple function wall switch for independent control of the fan/light/night light operations.

1. Run wiring from an approved wall switch carrying the appropriate electrical ratings. One neutral (white), one ground (green or bare copper), and three hot – one Black for fan control, one blue for main lighting, one brown for night light control. Secure the electrical wires to the housing with an approved electrical connector (make sure you leave enough wiring in the box to make the connection to the fan's wires.)

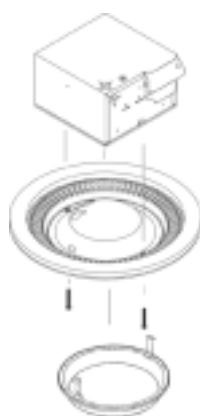


Fig. 3

2. From where you have access to inside the fan's junction box, connect the white wire from the house to two white wires in the fan's junction box (one white is for the fan, the other is for the lighting). Then connect the appropriate colored wire from inside the fan's junction box to the corresponding hot wire from the switch – black color = fan, blue color= light, brown color = night light. Connect the ground to the green ground inside the fan's junction box. Use approved electrical wire nuts.
3. Replace the fan's motor assembly and secure in place with the #8 screw removed earlier.

Completing the Installation

1. To complete the installation, spin the fan's blower wheel by hand to ensure it turns freely and does not hit anything. Then plug the motor into the appropriate receptacle.
2. Remove the grill/reflector/lens assembly from the carton. On the underside of the assembly are two 2" #8 screws used to secure the grill assembly to the fan housing. Carefully free the lighting wires from any packaging. The grill assembly is now ready for installation.
3. Carefully remove the glass lens from the grill base; it is press fit via two hidden tabs. A flat screw driver or knife used to pry the lens away from the base will release the lens. Once loosened, you may deflect the lens clips to release them from the grill base.
4. Plug the light fixture into the appropriate receptacle and secure the grill base/reflector to the fan housing via the two 2" screws through the base and into fan housing (two clips on fan housing). Refer to figure 3.
5. Install 1 x 100 watt bulb for main lighting and 1 x 7 watt maximum candelabra bulb for night lighting.
6. Install the glass lens onto the grill base by deflecting the lens clips into the slots on the base and pushing up into place.
7. Turn the power back on and test your installation.

Troubleshooting Guide

Trouble	Probable Cause	Suggested Remedy
1. Fan does not operate when the switch is on.	1a. A fuse may be blown or a circuit tripped. 1b. Connector plug from motor is not plugged in.	1a. Replace fuse or reset circuit breaker. 1b. Turn off power to unit. Remove Grill and plug motor into receptacle in housing. Restore power to unit.
2. Fan is operating, but air moves slower than normal.	2. Obstruction in the exhaust ducting.	2. Check for any obstructions in the ducting. The most common are bird nests in the roof cap or wall cap where the fan exhausts to the outside.
3. Fan is operating, is louder than normal.	3a. Motor is loose. 3b. Fan blade is hitting housing of unit.	3a. Turn off power to unit. Remove grill and check that all screws are fully tightened. Restore power to unit. 3b. Call your dealer for service.